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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,264	02/09/2004	Takanori Aoki	Q79727	8568

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EXAMINER

PUTTLITZ, KARL J

ART UNIT	PAPER NUMBER
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1621

DATE MAILED: 10/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/773,264

Applicant(s)

AOKI ET AL.

Examiner

Karl J. Puttlitz

Art Unit

1621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 09/822,488.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>various</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 3,383,427 to Wolfe et al.

The rejected claims cover a propargyl alcohol reduced in formaldehyde, wherein the formaldehyde content is 1,000 ppm or less, or wherein the formaldehyde content is 100 ppm or less, or wherein the formaldehyde content is 5 ppm or less.

The claims also cover a propargyl alcohol which is obtained by a process comprising reacting 1,2,3-trichloropropane with 3 equivalents or more of an alkali compound in the presence of a quaternary ammonium salt and/or a polymerization inhibitor; wherein said reaction comprises a first step of reacting 1,2,3-trichloropropane with an alkali compound to produce 2-chloroallyl alcohol and a second step of reacting said 2-chloroallyl alcohol with an alkali compound to produce propargyl alcohol.

The claims also cover a propargyl alcohol which is obtained by a process comprising reacting 1,2,3-trichloropropane with an aqueous solution containing 3 equivalents or more of an alkali compound in the presence of a quaternary ammonium salt and/or a polymerization inhibitor, wherein said reaction comprises a first step of reacting 1,2,3-trichloropropane with an aqueous solution containing an alkali compound

to produce 2-chloroallyl alcohol and a second step of reacting said 2-chloroallyl alcohol with an aqueous solution containing an alkali compound to produce propargyl alcohol.

The claims also cover a propargyl alcohol which is obtained by a process comprising the following two steps: (1) a step of reacting 2,3-dichloro-1-propanol with an amine to produce chloroallyl alcohol, and (2) a step of reacting the chloroallyl alcohol obtained in said step (1) with an alkali compound to produce propargyl alcohol.

With regard to the above embodiments, Wolfe teaches the preparation of propargyl alcohol from chlorinated ethylinic intermediates and ammonia and alkyl amines.

The difference between the propargyl alcohol set forth in the claims and that described by Wolfe, is that Wolfe fails to explicitly teach a reduced formaldehyde content. However, based upon the procedure in Wolfe, wherein no formaldehyde is used or produced, those of ordinary skill would expect that the formaldehyde content of Wolfe would necessarily be within the ranges claimed.

Wolfe is also applied to product by process claims 9-11, see MPEP 2113 ("[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) (citations omitted)).

Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wolfe in view of CN 1082061, online citation [retrieved 28 September 2006] Chemical Abstracts, Columbus, OH, USA (CN 061).

Claims 6 and 7 cover a resin produced from a reaction of a propargyl alcohol of the claims. While Wolfe fails to teach resins, it is for this proposition that the examiner joins CN 061, which teaches polymerization of propargyl. Consequently, those of ordinary skill would have been motivated to modify the disclosure of a reference that discloses propargyl alcohols, such as Wolfe, to include a further polymerization of propargyl alcohol, since CN 061 teaches that this step is useful to make the recited resins.

Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wolfe in view of U.S. Patent No. 6,106,684 to Kawakami et al. (Kawakami).

The claims cover a resin produced from a reaction of a propargyl alcohol of the claims, and a cationic electrodeposition coating containing the same. While Wolfe fails to teach these embodiments, Kawakami teaches a cationic electrodeposition coating containing resins comprising propargyl alcohol, see for example, Example 1. Consequently, those of ordinary skill would have been motivated to modify a disclosure describing propargyl alcohol to include its use in a resin, and, in turn, a cationic electrodeposition coating, since Kawakami demonstrates this utility.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7 and 9-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Akopyan et al., Vysokomolekulyarnye Soedineniya, Seriya A (1975), 17(5), 1072-5, online citation [retrieved 28 September 2006] Chemical Abstracts, Columbus, OH, USA (Akopyan).

Akopyan teaches polymerization of propargyl alcohol, which is inhibited by the vinyl conjugated reaction product $[-CH:C(CH_2OH)-]_n$. The foregoing anticipates the rejected claims within the meaning of section 102.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl J. Puttlitz whose telephone number is (571) 272-0645. The examiner can normally be reached on Monday to Friday from 9 a.m. to 5 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman K. Page, can be reached at telephone number (571) 272-0602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1621

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Karl J. Puttlitz
Assistant Examiner